

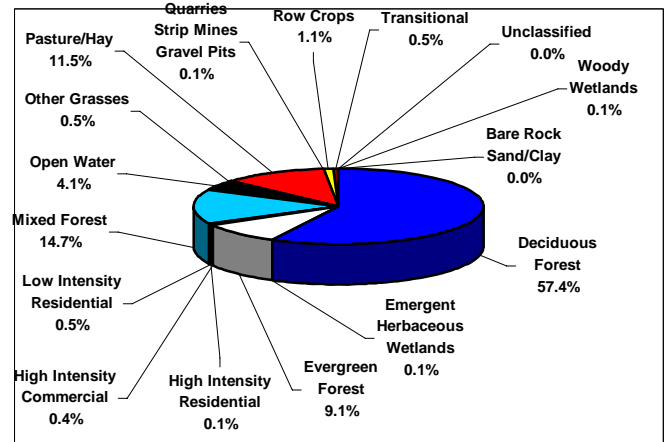
Summary – Upper Clinch River Watershed

In 1996, the Tennessee Department of Environment and Conservation Division of Water Pollution Control adopted a watershed approach to water quality. This approach is based on the idea that many water quality problems, like the accumulation of point and nonpoint pollutants, are best addressed at the watershed level. Focusing on the whole watershed helps reach the best balance among efforts to control point sources of pollution and polluted runoff as well as protect drinking water sources and sensitive natural resources such as wetlands. Tennessee has chosen to use the USGS 8-digit Hydrologic Unit Code (HUC-8) as the organizing unit.

The Watershed Approach recognizes awareness that restoring and maintaining our waters requires crossing traditional barriers (point vs. nonpoint sources of pollution) when designing solutions. These solutions increasingly rely on participation by both public and private sectors, where citizens, elected officials, and technical personnel all have opportunities to participate. The Watershed Approach provides the framework for a watershed-based and community-based approach to address water quality problems.

Chapter 1 of the Upper Clinch River Watershed Water Quality Management Plan discusses the Watershed Approach and emphasizes that the Watershed Approach is not a regulatory program or an EPA mandate; rather it is a decision-making process that reflects a common strategy for information collection and analysis as well as a common understanding of the roles, priorities, and responsibilities of all stakeholders within a watershed. Traditional activities like permitting, planning and monitoring are also coordinated in the Watershed Approach.

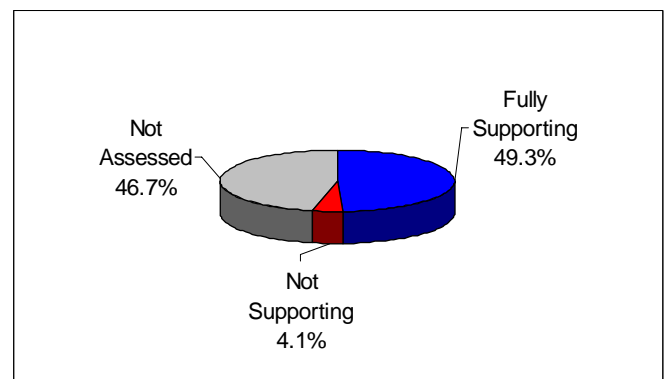
A detailed description of the watershed can be found in Chapter 2. The Upper Clinch River Watershed is approximately 1,944 square miles (709 mi² in Tennessee) and includes parts of seven Tennessee counties. A part of the Tennessee River drainage basin, the watershed has 757.1 stream miles and 34,681 lake acres in Tennessee.



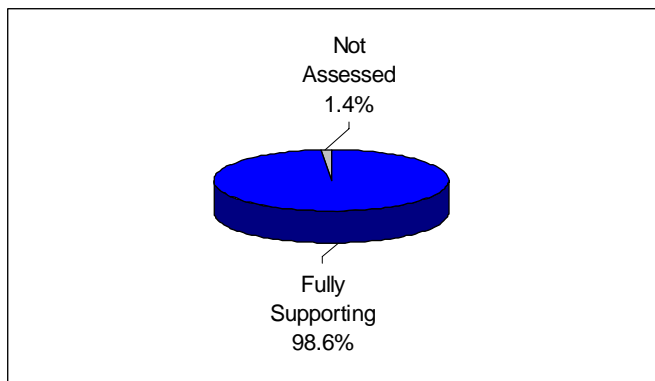
Land Use Distribution in the Upper Clinch River Watershed.

Three state parks and four wildlife management areas are located in the watershed. Eighty-one rare plant and animal species have been documented in the watershed, including fourteen rare fish species, twenty rare mussel species, and two rare snail species. A portion of one stream in the Upper Clinch River Watershed is listed in the National Rivers Inventory as having one or more outstanding natural or cultural values.

A review of water quality sampling and assessment is presented in Chapter 3. Using the Watershed Approach to Water Quality, 416 sampling events occurred in the Upper Clinch River Watershed in 2000-2005. These were conducted at ambient, ecoregion or watershed monitoring sites. Monitoring results support the conclusion that 95.1% of stream miles assessed fully support one or more designated uses.



Water Quality Assessment of Streams and Rivers in the Upper Clinch River Watershed. Assessment data are based on the 2004 Water Quality Assessment of 757.1 stream miles in the watershed.



Water Quality Assessment of Lakes in the Upper Clinch River Watershed. Assessment data are based on the 2004 Water Quality Assessment of 34,681 lake acres in the watershed.

Also in Chapter 3, a series of maps illustrate overall use support in the watershed, as well as use support for the individual uses of Fish and Aquatic Life Support, Recreation, Irrigation, and Livestock Watering and Wildlife. Another series of maps illustrate streams that are listed for impairment by specific causes (pollutants) such as pathogens, habitat alteration, and nutrient enrichment, and siltation.

Point and Nonpoint Sources are addressed in Chapter 4. Chapter 4 is organized by HUC-12 subwatersheds. Maps illustrating the locations of STORET monitoring sites and stream gauging stations are also presented in each subwatershed.

HUC-10	HUC-12
0601020501	060102050101 (Norris Lake)
	060102050102 (Norris Lake)
	060102050103 (Norris Lake)
	060102050104 (Norris Lake)
	060102050105 (Big Creek)
	060102050106 (Cove Creek)
0601020505	060102050502 (Clinch River)
	060102050503 (War Creek)
	060102050504 (Blackwater Creek)
	060102050505 (Clinch River)
	060102050506 (Richardson Creek)
	060102050507 (Panther Creek)
0601020507	060102050702 (North Fork Clinch River)
0601020508	060102050801 (Clinch River)
	060102050802 (Big War Creek)
	060102050803 (Indian Creek)
	060102050804 (Clinch River)

HUC-10	HUC-12
0601020509	060102050901 (Big Sycamore Creek)
	060102050902 (Little Sycamore Creek)
	060102050903 (Sycamore Creek)

The Tennessee Portion of the Upper Clinch River Watershed is Composed of twenty USGS-Delineated Subwatersheds (10-Digit Subwatersheds).

Point source contributions to the Tennessee portion of the Upper Clinch River Watershed consist of eight individual NPDES-permitted facilities, four of which discharge into streams that have been listed on the 2004 303(d) list. Other point source permits in the watershed are Tennessee Multi-Sector Permits (13), Aquatic Resource Alteration Permits (8), Mining Permits (8), Ready Mix Concrete Plant Permits (3), and Water Treatment Plant Permits (1). Agricultural operations include cattle, hog, and sheep farming. Maps illustrating the locations of permit sites and tables summarizing livestock practices are presented in each subwatershed.

Chapter 5 is entitled *Water Quality Partnerships in the Upper Clinch River Watershed* and highlights partnerships between agencies and between agencies and landowners that are essential to success. Programs of federal agencies (Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Army Corps of Engineers, and Tennessee Valley Authority), and state agencies (TDEC/State Revolving Fund, TDEC Division of Water Supply, Tennessee Department of Agriculture, Tennessee Stream Mitigation Program, and Virginia Department of Environmental Quality) are summarized. Local initiatives of organizations active in the watershed (The Nature Conservancy, Clinch-Powell RC&D Council, and Cumberland Mountain RC&D Council) are also described.

Point and Nonpoint source approaches to water quality problems in the Upper Clinch River Watershed are addressed in Chapter 6. Chapter 6 also includes comments received during public meetings, links to EPA-approved TMDLs in the watershed, and an assessment of needs for the watershed.

The full Upper Clinch River Watershed Water Quality Management Plan can be found at: <http://www.state.tn.us/environment/wpc/watershed/wsm/plans/>